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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,353	07/23/2003	Roy Stubbs	50771US006	8599
32692	7590	02/24/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			MORGAN, EILEEN P	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/625,353

Applicant(s)

STUBBS, ROY

Examiner

Eileen P. Morgan

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/540,674.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1,3,4,5 are rejected under 35 U.S.C. 102(a) as being anticipated by German 9407622.

The German reference discloses a direct coated sponge abrasive material directly bearing a securing hook means , wherein the abrasive layer comprises a coating of binders and abrasive material on the surface of the sponge material.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6, 10-12 rejected under 35 U.S.C. 103(a) as being unpatentable over German in view of Hong 4,202,139.

The German reference does not disclose the sponge having securing means of loop material or in combination with a strap. However, Hong et al. teaches an abrasive

Art Unit: 3723

sponge with loop securing means (20) on the back side for engagement with hooks, wherein a strap (25) is provided having hook engaging means (24). Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to provide German '622 with a strap in order to use the abrasive sponge with a hand without the need to grasp the whole sponge. In addition, to substitute the hooks of German '622 with loop securing means, as taught by Hong would have been obvious to one of ordinary skill in the art at time invention was made since both types of securing means work equally well and the choice of either would be within the level of ordinary skill. And, it would have been obvious since it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167. In regard to claims 10-12, it would have been an obvious design expedient at time applicant's invention was made to a person of ordinary skill in the art to use nylon loops based on its suitability for the intended use. In re Leshin, 125 USPQ 416. The sponge material and density would have been obvious design choices dependent on abrading parameters.

Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over German '622 in view of Hong, as applied to claims above, and further in view of Cheney.

Germany '622 nor Hong teach a back-up pad. However, Cheney teaches a sanding pad (42) with abrasive (50) on one side and on the other side hook and loop material (53) to be attached to a back-up pad (24) via mating surface (55) for use with a hand or powered sander (Abstract). Therefore, it would have been obvious to one of

Art Unit: 3723

ordinary skill in the art at time invention was made to provide Germany '622 in view of Hong with a back-up pad assembly, as taught by Cheney, in order to perform various sanding operations with one back-up pad while readily changing sanding pads of varying abrasive nature (via hook and loop).

Claims 1-6,10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong et al.-4,202,139 in view of Hurst-2,780,533.

Hong discloses an open cell polyurethane sponge material (12) free of abrasive material with an abrasive layer (14) on one side and a loop material (20) on the other side for attaching to a strap (23,25) to be used for hand sanding. The sponge of Hong uses a psa abrasive sheet to be attached thereto and does not disclose the sponge being a 'direct-coated sponge'. However, Hurst teaches an open cell sponge material that is directly coated with a binder/abrasive mixture (col.4, line 69). This type of abrasive material can have a controlled resiliency thus allowing the abrasive article to be subjected to localized areas of tension, compression and/ or torsion without rupture (col. 2, lines 35-55). Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to substitute the abrasive sponge of Hong with a direct coated abrasive sponge, as taught by Hurst, in order to increase flexibility which will decrease tear/rupture prolonging life of abrasive article.

In regard to claim 3, to substitute the loop securing means, as disclosed by Hong would have been obvious to one of ordinary skill in the art at time invention was made since both types of securing means work equally well and the choice of either would be within the level of ordinary skill. And, it would have been obvious since it has been held

Art Unit: 3723

that a mere reversal of essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167. In regard to claims 10-12, it would have been an obvious design expedient at time applicant's invention was made to a person of ordinary skill in the art to use nylon loops based on its suitability for the intended use. In re Leshin, 125 USPQ 416. The sponge density would have been an obvious design choice dependent on abrading parameters.

Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Hong in view of Hurst, as applied to claims above, and further in view of Cheney.

Hong nor Hurst teach a back-up pad. However, Cheney teaches a sanding pad (42) with abrasive (50) on one side and on the other side hook and loop material (53) to be attached to a back-up pad (24) via mating surface (55) for use with a hand or powered sander (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to provide Hong in view of Hurst with a back-up pad assembly, as taught by Cheney, in order to perform various sanding operations with one back-up pad while readily changing sanding pads of varying abrasive nature (via hook and loop).

### ***Response to Arguments***

Applicant's arguments filed 1-23-06 have been fully considered but they are not persuasive.

Applicant argues that Germany'622 does disclose a 'direct-coated sponge'. However, the sponge is directly coated with the binder/abrasive mixture. The abrasive

Art Unit: 3723

particles become embedded after the coating is applied. In addition, the claim says 'comprising a coating....' In which the German reference reads on this. The sponge does not contain abrasive particles before the coating is applied. In addition, a new rejection has been applied including the reference Hurst who discloses a direct coated sponge free of embedded abrasives.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen P. Morgan whose telephone number is 571.272.4488. The examiner can normally be reached on Monday-Thursday (Office), Friday (Work at home).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571.272.4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EM

Application/Control Number: 10/625,353

Page 7

Art Unit: 3723

February 21, 2006

A handwritten signature in black ink, appearing to read 'EPM', with a long horizontal flourish extending to the right.

EILEEN P. MORGAN  
PRIMARY EXAMINER